# Corsican Trichoptera.

BY

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It is stated in McLachlan's great work that information as to the Trichoptera of the islands of the Mediterranean is very scanty. Recent years have added but little to the local records of a group of insects which is of considerable economic importance to the trout-fisheries in those parts. In fact, since McLachlan's work was completed in 1884, the only notes I have been able to trace are, the description of *Halesus corsicus* by Dr. Ris in 1897; Dr. Esben-Petersen's account of the Trichoptera collected in Corsica by Mr. V. Budtz in 1911 and 1912; Fr. Navás' record of four species also from Corsica in 1912. Klapálek in 1917, records five species collected by Prof. A. Hetschko in Corsica and finally Dr. G. Ulmer records one imago, three larvae and one larval case from the same island in 1926.

For some years it had been in my mind that a visit to Corsica during the early part of the year would well repay a collector who was willing to concentrate his energies on this Order. In 1928, business arrangements necessitated my taking a vacation towards the end of May, and I seized upon the opportunity with a keen anticipation of an extremely interesting collecting trip. Nor was I disappointed. Apart from the pleasure of visiting a new country and an appreciation of collecting amidst the magnificent scenery that the island affords, I had the satisfaction of not only taking practically all the previously recorded species of Corsica and some of Sardinia that were not known to occur in the sister isle, but I was also fortunate in securing no fewer than twenty new species of Trichoptera and five new species in the Plecoptera, covering many genera and some of them of unusual interest and beauty.

The three other Orders to which I turned my attention will be dealt with by Mr. K. J. Morton (*Plecoptera*) and Mr. D. E. Kimmins (*Planipennia* and *Ephemeroptera*).

Mr. Kimmins has taken a far greater part in the work than the few species he records would suggest. All the Trichoptera figures have been drawn by him and his assistance has been of a nature which almost amounts to joint authorship.

Corsica on the whole must be considered as a dry island; certainly so in the mountain area which comprises almost the entire centre and west. The east coast is flat with numerous marshes and small lakes, but the presence of the malaria mosquito renders the collection of water-insects somewhat venturesome. Judging from the recorded species, this district has never been worked for Trichoptera, and I deemed it wiser to give it a wide berth, though I hope one day to revisit the island and perhaps venture into the danger zone.

I made my headquarters at Corte, the capital, a small town at an altitude of 396 metres, picturesquely situated in the centre of the island at the junction of the two fine rivers, the Tavignano, and the Restonica. These rivers are snow-fed and during my stay were not very productive of Trichoptera in the adult form, though larvae were in evidence in considerable numbers. I was told that they were full of trout, but I saw none rising so early in the season. Towards the end of my visit the winged forms of water-insects began to appear, and no doubt, after the middle of June, they furnish a veritable harvest both to the Entomologist and the trout. And this recalls a remark once made to me by a very eminent entomologist, who observed \*Fancy feeding trout on undescribed species!\*

But there were several small spring-fed tributaries which were very rich in Trichoptera and my efforts were mainly concentrated on these brooks. The mountains, chiefly limestone, are very precipitous and dry: even so early as May the watercourses were mostly dried up.

There are few surface springs but in the Tavignano gorge, a crude aqueduct of hollowed tree-trunks, layed end-to-end and leaking for generations past, has produced swampy places which seem to have attracted the local fauna that is associated with natural springs. This aqueduct extends two miles or so at some height above the roadside along the steep slope of the mountain, and beneath it in the soaking herbage, Beraea and Tinodes species were present in great numbers, whilst over the trough itself Rhyacophila and Micrasema species could frequently be seen.

One little insect, Beraea pallida, was found exclusively within a few square yards where this aqueduct had spilt its waters over a road-side wall of rock.

I paid two visits to the higher ground at Vizzavona, which is situated in the midst of a fine forest at 906 metres. This is the highest resort in the island where modern hotel accomodation may be obtained. My first visit on May 30th was productive of very little but my second, a week later, found insect life rather more advanced. On this occasion I secured a fine example of *Potamorites budtzi* Ulmer and a *Stenophylax crossotus* McL., as well as a new *Leuctra* which is being described by Mr. Morton. In a tiny brook I secured a new *Polycentropus* and several examples of *Diplectrona meridionalis* Hagen. One of the two main streams which flow through Vizzavona was almost entirely blocked by fallen trees brought down by an avalanche the preceding winter, and it was very difficult to travel far up its banks or even to approach the water.

The new Beraea and Ernodes species belie their generic description as being all small black unicolorous insects. One species, E. nigroaurata, which was very plentiful, is a veritable little jewel, having wings edged with deep black whilst the centre portion towards the apex is uniformly bright gold. Here let me say that gold seems to be the prevalent colour amongst the Corsican Trichoptera. We have the golden Selis aurata, Tinodes aureola, Silo rufescens, black with gold patches, Micrasema togatum, of a dark coppery gold, and in many other species a golden vestiture seems to predominate.

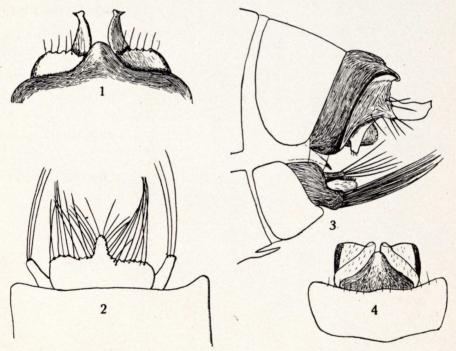
Two new *Rhyacophila* species were taken belonging to the *torrentium* and *intermedia* groups respectively. It is a curious feature which, I fancy, has hitherto escaped observation, that these two groups generally occur together, species of the *torrentium* group appearing on the larger rivers and, of the *intermedia* group, on their smaller tributaries. Thus we have *R. torrentium* accompanied by *R. proxima* in the Alps. *R. evoluta* is coupled with *R. fraudulenta* in the Auvergne. In the Pyrenees we find *R. occidentalis* and *R. contracta* and finally in Corsica the new species *R. trifasciata* and *R. pallida* are to be found under similar conditions.

A few hours at the port of my arrival and departure, Bastia, were well spent on the one small stream that empties into the harbour and here I obtained a new species of Agapetus and many others of interest including Hydroptila uncinata Morton, and Leptocerus genei Ramb., both occuring in great numbers.

## Family SERICOSTOMATIDAE McLachlan.

### Thremma sardoum Costa (figs. 1-4).

As no description or figure of the genitalia of *Thremma sardoum* has been published as yet, this paper seems a fitting medium for supplying the omission, the insect occurring abundantly in Corsica.



Figs. 1-4.—Thremma sardoum Costa,  $\emptyset$ . 1, genitalia from above; 2, ventral plate from beneath; 3, genitalia from the side; Q, 4, genitalia from above.

Genitalia of. Last dorsal segment produced in the centre of its margin to a triangular peak; superior appendages from the side triangular with upper margins turned inwards and, from above, appearing as plates with serrated edges, fringed with hairs, projecting slightly beyond the margin of the last segment; intermediate appendages yellow, from the side boat-shaped with the apices truncate, lower angles

produced downwards in obliquely truncate processes; from above they project beyond the margin of the last dorsal segment in two long processes, broad at the base, curving slightly outwards, narrowing to a constriction towards the apices, which are truncate, with acute outer angles; penis thick, directed outwards; lower penis-cover broad at the base, narrowing to a point, directed downward; inferior appendages somewhat slender, finger-shaped; centre of ninth ventral segment produced in a narrow plate, carrying on its upper surface a close series of blunt black teeth; there is a short tooth densely clothed with coarse hairs on the seventh ventral segment.

In the Q there is a triangular dorsal process beneath which can be seen two lobes with strongly chitinised lower margins, inclining towards each other; margin of the eighth ventral segment fringed with strong hairs.

Corte, Corsica, 21.V-8.VI.1928. Very plentiful.

## Micrasema cinereum sp. n. (figs. 5-6).

Head black, clothed with creamy white hairs; antennae fuscous; palpi cinereous.

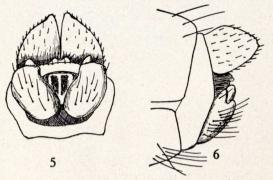
Wings silvery grey with cinereous hairs; rather narrow and darker in Q.

Legs clothed with yellowish hairs.

Abdomen fuscous.

Genitalia of conforms generally with that of Micrasema togatum.

Dorsal plate consists of two triangular caps projecting over the rather strongly chitinised margin of the ninth segment which is clearly visible in balsam preparations. Two ridges appear on this margin on the upper of which are two tubercles carrying long stout hairs; penis short



Figs. 5-6.—Micrasema inereum sp. n., o., 5, genitalia from beneath; 6, genitalia from the side.

with blunt rectangular apex; inferior appendages very stout at the

base, two jointed, second joint arising from a deep cleft at the apex of the first joint; no ventral spurs.

Q as is usual in the genus.

Length of body, ♂ 4 mm.; ♀ 5 mm. Expanse ♂ 12 mm.; ♀ 14 mm.

Corsica: Corte, Vizzavona, 21.V-8.VI.1928.

This species can be separated from togatum by the striking difference in the colour of the fresh insects, togatum being red-gold and cinereum silvery-grey.

### Lepidostoma fimbriatum Ed. Pict.

One of example of this species was taken together with L. hirtum Fabricius. McLachlan in his description calls attention to the «very sparse» clothing of scales on the anterior wings. By a chance arrangement of the lighting system of my microscope, I obtained a view of the wings against a dark background and was interested in observing that the anterior wings are as densely clad with scales as the posterior, but in fimbriatum the scales on the anterior wings are pale yellow or white and entirely invisible by transmitted light. Scales on the posterior wings are black as in hirtum.

## Family LEPTOCERIDAE Leach.

## Leptocerus genei Ramb. (figs. 7-9).

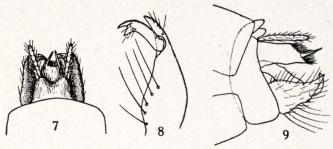
Description of genitalia not hitherto figured.

Genitalia of; ninth dorsal segment deeply excised; superior appendages widely divergent, of equal thickness throughout their length; upper penis-cover short and broad bearing slightly before the apex two strongly chitinised processes arising towards the outer margins of the cover, sloping inward and slightly upward; laterally the cover appears nearly rectangular, apex obliquely truncate; penis short and stout, curving downward; inferior appendages laterally, very stout at the base, narrowing slightly towards the apex which is obliquely trun-

cate, upper angle terminating in a strong, very broad upturned spine; from beneath they are seen to be two-jointed, lower joint bifurcate at the apex, upper joint simple; margin of the last ventral segment shallowly excised.

♀ genitalia presents no distinguishing features from the allied species cinereus Curt.

This species was described by Rambur from an example taken in Sardinia. McLachlan in his Monograph gives an account but no fig-



Figs. 7-9.—Leptocerus genei Rambur, J. 7, genitalia from above; 8, inferior appendage from beneath; 9, genitalia from the side.

ures of the genitalia owing to the condition of the examples before him. The type is in the De Selys collection, but as abundant fresh material is now available from Corsica, it is desirable to supplement McLachlan's brief description with figures.

# Family MOLANNIDAE Wallengren.

# Beraea aureomarginata sp. n. (figs. 10-15).

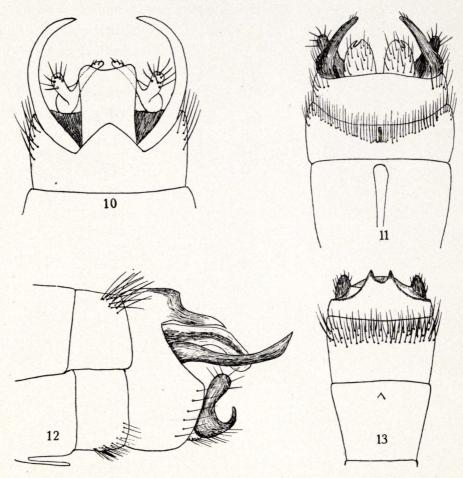
Head black, densely clothed with golden hairs, with a large conical wart situated at the vertex as in *B. maurus*, which it closely resembles; palpi black with black hairs; antennae black.

Wings, anterior black, clothed with black and golden hairs, with a small black callosity at the base, fringes very long and golden, so that in repose a line of gold extends down the centre of the insect from the head to the extremity of the wings; lower margin of the anterior wing densely clothed with androconia as in maurus. Posterior wings black, clothed with black and golden hairs.

Legs dark fuscous.

Abdomen dark fuscous.

Genitalia of. A broad triangular projection arises from the middle of the last dorsal segment; below this is a long membranous upper penis-cover with its broad apex slightly excised; superior appendages

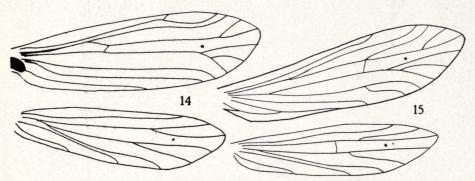


Figs. 10-13.—Beraea aureomarginata sp. n., of. 10, genitalia from above; 11, genitalia from beneath, superior appendages &, not shown; 12, genitalia from the side; Q, 13, genitalia from beneath.

strongly chitinised, dark fuscous, long, curving inwards like callipers; laterally, apices obliquely truncate, curving slightly upward; penis fleshy, directed downward and armed with four or five strong black spines; inferior appendages bifurcate; seen from above, upper branches short, rounded, the lower, long and slender, crossing beneath the upper and inclining towards each other; seen from the side, upper

branches directed upward and dilating to a rounded apex, lower branches short and narrow, apices acute, curving upwards towards upper branches. From the centre of the last ventral segment arise two rounded processes deeply and narrowly notched, upon the upper sides of which are situated two small subsidiary processes directed upwards and carrying one or two setae at their extremities. A small dark tooth is buried in a heavy fringe of hairs on the eighth ventral segment and on the seventh is a long strong tooth with rounded and dilated apex.

In the Q the appendages are dark, fuscous, widely separated, outer margins of the egg-pouch forming a truncated triangle, the apex



Figs. 14-15.—Beraea aureomarginata sp. n. 14, J, Wings; 15, Q, Wings.

carrying two small rather widely separated projections. A short spur on penultimate ventral segment.

Length of body  $\sqrt{3}$  4 mm.;  $\sqrt{2}$  3 mm. Expanse  $\sqrt{3}$  9 mm.;  $\sqrt{2}$  8 mm.

 $\circlearrowleft$  type is a balsam preparation in the author's collection,  $\circlearrowleft$  and  $\supsetneq$  paratypes in the author's and British Museum collections.

Corsica: Corte, Bastia, 21.V-8.VI.1928.

B. aureomarginata is most variable in the colour of the hairs of the head and other parts, more particularly the fringes of the wings. One or two examples are entirely black but show no variation in the structure of the genitalia. The above description is that of the typical form. This is no doubt the B. maurus, recorded by Klapálek, in 1917.

### Beraea pallida sp. n. (figs. 16-17).

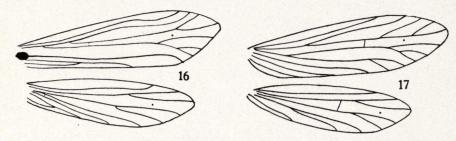
Head fuscous, clothed with golden hairs, with a conical wart at vertex; palpi yellowish with gold hairs; antennae fuscous with closely adpressed silky gold hairs.

Wings rather narrower and more pointed than in aureomarginata, greyish, with short golden hairs, fringes long, golden.

Legs yellowish with dense gold hairs.

Abdomen dark fuscous.

Genitalia of so closely resembles that of aureomarginata that I have not been able to find any intelligible variation to figure. It is



Figs. 16-17.—Beraea pallida sp. n. 16, o, Wings; 17, Q, Wings.

possible that the penis may be armed with rather more numerous strong spines, and the various parts are much lighter in colour. The main differentiating characters lie in the shape, colour and slight variations in the neuration of the wings which will be appreciated on a comparison of the figures.

Genitalia ♀ resembling that of aureomarginata.

Length of body 3 mm.; 2 mm. Expanse 3 8 mm.; 4 6 mm. 4 type is a balsam preparation in the author's collection, 4 and 4 paratypes in the author's and the British Museum collections.

Corsica: Corte, 21.V-8.VI.1928.

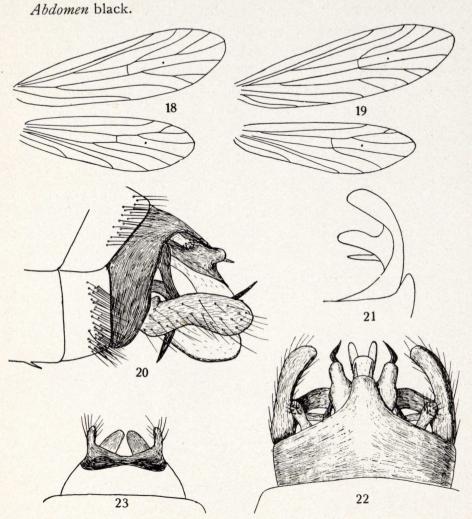
### Ernodes nigroaurata sp. n. (figs. 18-23).

Head black, with yellowish hairs; palpi dark fuscous densely clothed with black hairs; antennae dark fuscous.

Wings, anterior, membrane grey, apical portion almost entirely

filled with a mat of golden hairs, remainder of the wing covered with dense black hairs. Posterior wing clothed with black hairs.

Legs clothed with adpressed gold hairs.



Figs. 18-23.—Ernodes nigroaurata sp. n. 18, 3, Wings; 19, Q, Wings; 20, 3, genitalia from the side; 21, inferior appendage from beneath; 22, genitalia from above; 23, Q, genitalia from above.

Genitalia of fashioned somewhat similarly to that of Ernodes (Beraea) articularis; middle of last dorsal segment produced to form a truncated cone carrying at each apical angle a small pointed process clothed with fine hairs; superior appendages short, clavate; upper penis-cover yellow, widely furcate. Arising apparently from the base of the cover are two strongly chitinised processes curving downward

then upward and outward with the tips converging. They may be the intermediate appendages; beneath these are two down-curving penis-sheaths; penis short, fleshy, down-turned; lower penis-cover long, membranous, bifurcated from nearly the base; inferior appendages complicated; laterally reniform in shape, stout, concave, curving slightly upward; a membranous spur-like process arises towards the base of the inner and upper margin projecting inward; near the point of origin of this process but towards the centre of the appendage a second much larger and stouter process is seen, clavate in shape, nearly parallel to the first process. Last ventral segment fringed with strong hairs, previous segment carrying a strong tooth.

Genitalia Q; terminal appendages long and slender, apices somewhat dilated and fringed with hairs, their bases united by a transparent membrane. Underneath these can be seen two nearly elliptical chitinous plates, their apices somewhat acute and inclining towards each other; last ventral segment fringed with hairs; a short tooth on the penultimate ventral segment. The genitalia on the whole resembles that of articularis Pict.

Length of body 3 mm.; 2 mm. Expanse 3 mm.; 9 mm. type is a balsam preparation in the author's collection, 3 and 9 paratypes in the author's and British Museum collections.

Corsica: Corte, Bastia, 21.V-8.VI.1928.

# Family HYDROPSYCHIDAE Curtis.

## Diplectrona magna sp. n. (figs. 24-26).

Head fuscous with golden-brown hairs; palpi yellowish-brown; antennae yellowish-brown with brown annulations, serrate towards the extremity.

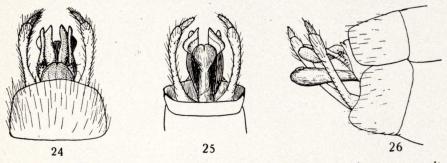
Wings, anterior, dark fuscous with numerous gold irrorations; three conspicuous gold spots between the costa and sub-costa towards pterostigma; one large golden blotch at the pterostigma formed by two or more spots coalescing; golden spots spreading over the fringes at the margin of each apical cellulle; elsewhere fringes brown; apex of wing rather more acute than is usual in the genus; posterior, very

broad, yellowish-brown, darker towards the apex, with a few golden spots interrupting the fringes at the upper apical margin.

Legs stramineous.

Abdomen fuscous above, yellowish-brown beneath.

Genitalia of. Anal parts yellow; superior appendages represented by two small triangular lobes covering the base of the intermediate appendages; upper penis-cover divided centrally, each half widely dilated when viewed from above, narrowing to a point; laterally, outer edges turned downwards making deep flaps; intermediate appendages long, finger-shaped, extending above and as far as the apex of the upper penis-cover; from both ventral and lateral aspects the penis



Figs. 24-26.—Diplectrona magna sp. n., J. 24, genitalia from above; 25, genitalia from the side.

much broadened and carrying on its dorsal surface towards the apex, two tubercles or short processes; inferior appendages yellowish, incurved, second joint short.

Only one Q was taken, and in this the genitalia are not sufficiently distinct to admit of description.

Length of body  $\circlearrowleft$  6 mm.;  $\circlearrowleft$  7 mm. Expanse  $\circlearrowleft$  17 mm.,  $\circlearrowleft$  20 mm.  $\circlearrowleft$  type is a balsam preparation in the author's collection,  $\circlearrowleft$  and  $\circlearrowleft$  paratypes in the author's and British Museum collections.

Corsica: Corte, 21.V-8.VI.1928.

It has not previously been recorded that in species of *Diplectrona* in the  $\nearrow$  sex only, there are one or more pairs, according to species, of chitinous, spherical, perhaps convoluted bodies, apparently reticulated, situated within the abdomen but opening directly to the exterior under the overlapping plates of the sixth and seventh segments. Their function has not yet been understood and no doubt they corres-

pond to the lateral rounded processes of the sixth segment in species (3) of Agapetus. In D. magna there are two pairs of these internal organs.

McLachlan in his First Additional Supplement, p. 45, when discussing *D. felix* remarks that he has a series of a *Diplectrona* species from Central Italy which, while resembling this species, differs a good deal from the typical form and the insects are ordinarily of large size. It may be that this and the Corsican *D. magna* are identical.

### Plectrocnemia confusa sp. n. (figs. 27-29, 31, 33, 35, 37).

Head. Vertex clothed with creamy, and narrowly bordered with black hairs; palpi testaceous; antennae brown, annulated with testaceous; pronotum and mesonotum clothed with creamy, and bordered with black hairs.

Wings as in geniculata.

Legs testaceous.

Abdomen fuscous above, testaceous beneath.

Genitalia 3. Upper penis-cover membranous, nearly oblong with apex deeply excised; on each side arises a testaceous spine curving outward and downward, as seen from the side, slightly dilated before the apex, the dilated portion beneath, serrated and fringed with a few strong spines; intermediate appendages (superior appendages according to McLachlan) are very complicated; in each there are two parallel plates of which the two inner are united at their bases beneath the penis; from the side the outer plate is broad, triangular and is connected to the inner plate by a furrowed bridge; the inner plate from the side is nearly quadrangular, the outer upper angle carrying a strong tooth directed outward and downward, the outer lower angle carrying two strong teeth directed downward (It is possible that these inner plates really represent penis-sheaths.); penis complex; there is a strongly chitinised roof to a membranous dilated process which carries two long stout spurs in its apical portion; the chitinised roof at its extremity is directed upwards and outwards, thus forking with the membranous apex which is directed outwards; dorsally the strongly chitinised portion apears as a pair of sheaths connected by a transparent membrane;

inferior appendages externally as in *geniculata*; internally towards the base there is a transparent, transverse upright plate; articulated to the inner surface of the appendage towards the base is an intricate process of which the inner portion is bent downwards and under; the apex of the process widely excised, the upper angles being produced in two

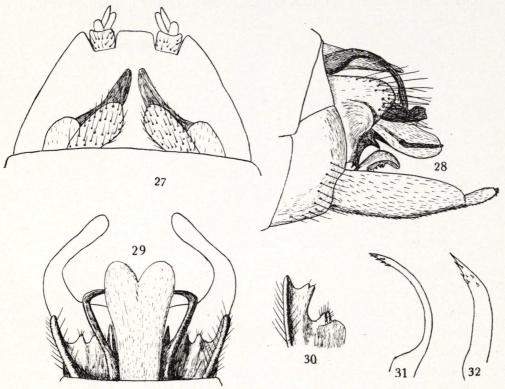


Fig. 27.—Plectrocnemia confusa sp. n., genitalia  $\circlearrowleft$  from beneath; 28, genitalia  $\circlearrowleft$  from the side; 29, genitalia  $\circlearrowleft$  from above; 30, Pl. geniculata McL., intermediate appendage  $\circlearrowleft$  from above; 31, Pl. confusa sp. n., dorsal spine  $\circlearrowleft$ ; 32. Pl. geniculata McL., dorsal spine  $\circlearrowleft$ .

hooked processes, of which the outer and larger is serrated beneath; the angle of the inturned portion terminating in a rounded process thickly covered with plate-like spines.

Genitalia Q somewhat similar to that of geniculata.

Length of body  $\circlearrowleft$  8 mm.;  $\circlearrowleft$  9 mm. Expanse  $\circlearrowleft$  27 mm.;  $\hookrightarrow$  31 mm.  $\circlearrowleft$  type is a balsam preparation in the author's collection,  $\circlearrowleft$  and  $\hookrightarrow$  paratypes in the author's and the British Museum collection.

Corsica, Corte, 21.V-8.VI.1928.

Plectrocnemia confusa bears a very close superficial resemblance

Eos, VI, 1930.

to *P. geniculata* (figs. 30, 32, 34, 36, 38). It is only when the internal parts of the genitalia of the one are compared with those of the other, that important differences of structure can be made out. In the figures, the details of the two species may be compared and these differences in form noted. The student should more particularly refer for specific characters to the shape of the spines bordering the upper penis cover

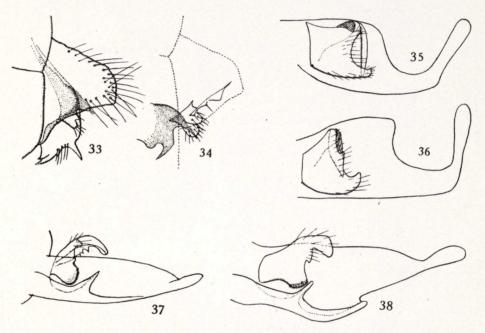


Fig. 33.— Plectrocnemia confusa sp. n., intermediate appendage of from the side; 34, Pl. geniculata McL., intermediate appendage of from the side; 35, Pl. confusa sp. n., inferior appendage of from above; 36, Pl. geniculata McL., inferior appendage of from above; 37, Pl. confusa sp. n., inferior appendage lateral internal; 38, Pl. geniculata McL., inferior appendage lateral internal.

(figs. 31 and 32) (can these be a form of superior appendages?), the dorsal and lateral aspect of the intermediate appendage and the structure of the auxiliary attachment to the inferior appendages.

It is almost certain that the examples of *geniculata* in the de Selys collection and those recorded by Dr. Esben-Petersen pertain to the above species, and having regard to the superficial resemblance between *confusa* and *geniculata* it is not impossible that the *P. conspersa* recorded by Brauer may really be some kindred but separate species.

### Family POLYCENTROPIDAE Ulmer.

### Polycentropus divergens sp. n. (figs. 39-41).

Head black with black hairs except at the vertex where there are pale yellow hairs extending between the antennae; palpi light fuscous; antennae dark fuscous with pale yellow annulations.

Wings. Anterior, greyish-brown irrorated with very conspicuous pale yellow spots coalescing towards the pterostigma making a cons-



Figs. 39-41.—Polycentropus divergens sp. n., J. 39, genitalia from above; 40, inferior appendages from beneath; 41, genitalia from the side.

picuous blotch; posterior, uniformly greyish, somewhat darker towards the apex.

Legs yellowish brown.

Abdomen fuscous above, reddish-brown beneath.

Genitalia of; dorsal plate very broad, still broader towards the apex which is deeply excised, outer angles rounded; two triangular lobes on each side of the base; from the extremity of each lobe proceeds a long down-curved spine; superior appendages from the side, broad with rounded apices, lower margins moderately serrated; intermediate appendages very long, slender excepting at the extreme base; they arise from beneath the dorsal plate, diverging gradually, then approaching each other towards the apex of the plate, beyond which they diverge at right-angles, apices directed slightly upwards; inferior appendages broad, nearly as long as the superior appendages, apices from the side, widely excised, from beneath the upper margin curved inwards over the lower margin, upper surface being the shorter so that the lower surface projects beneath it at a sharp angle; margin of last ventral segment shallowly excised.

Q unknown.

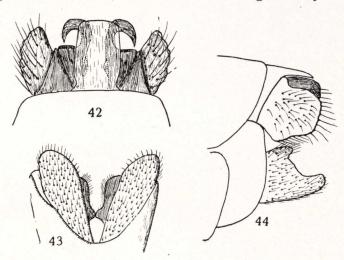
Length of body of 4 mm.; expanse 13 mm.

Corsica: Corte, Bastia, 21.V-8.VI.1928.

### Polycentropus mortoni sp. n. (figs. 42-44).

Head fuscous with yellowish hairs; palpi fuscous; antennae light fuscous with yellowish annulations.

Wings. Anterior, fuscous irrorated with golden spots, some of



Figs. 42-44.—Polycentropus mortoni sp. n., A. 42, genitalia from above; 43, inferior appendages from beneath; 44, genitalia from the side.

which coalesce along the costal margin towards the apex; posterior, uniformly grey.

Legs yellowish.

Abdomen fuscous.

Genitalia of. There is a membranous dorsal plate as is usual in the genus; on each side a triangular lobe as in flavomaculatus; superior appendages short and broad; intermediate appendages in fresh examples directed downward but turn outward when dry, very stout, each bearing a triangular plate towards the base, level with the apices of the triangular lobes of the dorsal plate; inferior appendages laterally with

a very wide excision at the apex, distinguishing the species from flavomaculatus which, apart from size, it closely resembles.

Q genitalia as is usual in the genus.

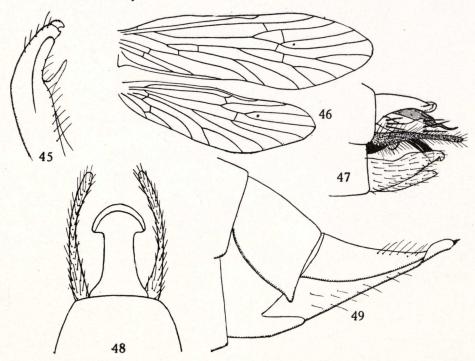
Length of body, ♂ 5 mm.; ♀ 7 mm. Expanse ♂ 18 mm.; ♀ 21 mm.

Corsica: Vizzavona 4. VI. 1928.

## Family PSYCHOMYIDAE Kolenati.

Tinodes agaricinus sp. n. (figs. 45-49).

Head fuscous with pale yellow hairs; palpi dark fuscous; antennae fuscous with faint yellow annulations.



Figs. 45-49.—*Tinodes agaricinus* sp. n., ♂. 45, inferior appendage from beneath; 46, Wings; 47, genitalia from the side; 48, dorsal plate and superior appendages from above; 49, ♀, ovipositor from the side.

Wings. Anterior, narrow, pointed, membrane greyish, pubescence golden; posterior, pale grey with light fuscous fringes.

Legs yellowish brown.

Abdomen fuscous above, yellowish beneath.

Genitalia , anal parts yellowish; dorsal plate long, broad at the base narrowing toward the apex, then expanding into a mushroomlike cap with the apical rim curling back over the plate; upper peniscover terminating in a long sinuous process; superior appendages from above narrow, finger-like, dilating slightly towards the apices, clothed with black hairs; laterally, wide at the base, narrowing rather suddenly towards the middle, very slightly dilated towards the apex; intermediate appendages inclining slightly downward, stout at the base then narrowing, finally arching upward to a thick truncated apex; at various points along the sides and at the apex are very long stout spines; penis broad at the base, narrowing in an arch to the slightly dilated apex; penis sheaths long, slender; inferior appendages two-jointed, lower joint simple; upper joint laterally broad at the base with the apex notched beneath; ventrally the apex is turned slightly inward; a membranous branch arises from about the centre directed inwards and upwards.

Genitalia Q. Ovipositor is of medium length, stout at the base, curving slightly upwards.

Length of body  $\circlearrowleft$  4 mm.;  $\circlearrowleft$  5 mm.; expanse  $\circlearrowleft$  14 mm.;  $\circlearrowleft$  16 mm.  $\circlearrowleft$  type is a balsam preparation in the author's collection,  $\circlearrowleft$  and  $\circlearrowleft$  paratypes in the author's and British Museum collections.

Corsica: Corte, Bastia, Vizzavona, 21.V-8.VI.1928.

## Tinodes cortensis sp. n. (figs. 50-51).

Head fuscous with dense golden hairs; palpi fuscous; antennae fuscous annulated with yellow, membrane between the base of antennae and oculi white.

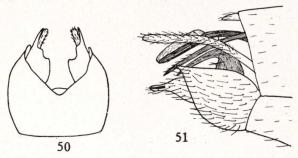
Wings. Anterior, grey clothed with fine gold hairs, neuration prominent, fuscous; posterior, yellowish grey with golden fringes.

Legs light yellow.

Abdomen fuscous above, yellowish brown beneath.

Genitalia of. Dorsal plate membranous, short and triangular; superior appendages long, slender; no visible upper penis-cover; no visible intermediate appendages; penis arched and slender, apex mem-

branous; penis sheaths long, slender, arching; inferior appendages joined internally by a membrane, possibly a lower penis-cover, from the centre of which arises a strong arched spine, very stout at the base; these appendages are two-jointed; laterally, first joint is broad at the base becoming broader at the truncate apex, second joint attached to inner side of first, its apex terminating in a ciliated process by the side of which is a long spine; from below inferior appendages appear to coalesce to form a single globular process with deep V-shaped excision at the centre of the lower margin; in the excision can be seen the second joints of the appendages, triangular at the base, facing



Figs. 50-51.—Tinodes cortensis sp. n., 7. 51, inferior appendages from beneath 51, genitalia from the side.

inwards across the excision, with, about midway, a deep excision of the inner margin and a smaller excision towards the apex.

 $\bigcirc$  unknown or not separable from that of T. waeneri found with it.

Length of body of 5 mm.; expanse 18 mm.

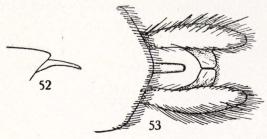
of type is a balsam preparation in the author's collection, paratypes in the author's and British Museum collections.

Corsica: Corte, 21.V-8.VI.1928.

In this species the genitalia appears to differ considerably in construction from the typical form. The apparent absence of an upper penis-cover and intermediate appendages, the coalescing of the inferior appendages, and the single, centrally placed spine at their base, furnish a striking distinction between it and all other described species in the genus. Superficially it resembles T. waeneri and the author has been unable to separate the Q Q, both species being present by the water at the same time.

## Lype flavospinosa sp. n. (figs. 52-53).

Head black with golden hairs at the vertex; on the posterior region are two large oval warts clothed with dark brown hairs; palpi fuscous;



Figs. 52-53.—Lype flavospinosa sp. n., J. 52, dorsal plate from the side; 53, genitalia from above.

antennae fuscous with indistinct yellowish annulations.

Wings clothed with golden brown pubescence.

Legs fuscous.

Abdomen fuscous above, yellowish brown beneath.

Genitalia of from above, dorsal plate broad and straight, apex scarcely narro-

wer than the base, colour yellowish: laterally, broad at base, upper margin nearly straight, lower rising to form a long thin process rather more than half the length of the inferior appendages; superior appendages very long, broad and hairy, pale yellow in colour; inferior appendages fuscous, apices much dilated, inclined towards each other; penis short, thick, directed downward.

Length of body of 4 mm.; expanse 13 mm.

Q unknown.

otin type in the author's collection, otin paratypes in the author's and British Museum collections.

Corsica: Corte, 21.V-8.VI.1928.

# Family PHILOPOTAMIDAE Wallengren.

## Philopotamus siculus Hagen (fig. 54).

Philopotamus ludificatus Pertersen nec Hagen.

McLachlan in his description of this species states that he has seen four examples «all evidently much rubbed». Whilst in Corsica I took a series of twelve and as they all presented the appearance of being rubbed, it must be concluded that the faded look of the wings is

natural. There is little to add to McLachlan's description. A figure is given of the inferior appendage of this species from which it will be seen that there is little resemblance to the corresponding appendage in *montanus* though the penis and cover are somewhat alike. In *siculus* the upper margin of the upper branch curves evenly to a rounded apex; the lower margin, which is densely fringed with short, thick black spines, rather abruptly dilates a short distance

from the base to form an obtuse triangular projection; it then approaches the upper margin and forms a nearly straight line to the apex; penis rather more hooked than in *montanus*; sheaths short and straight instead of long and curved.

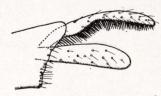


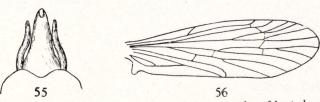
Fig. 54.—Philopotamus siculus Hagen, J. Inferior appendage.

It is also noteworthy that the insect frequently carries the upper branch of the

inferior appendage *pointing* directly upwards from its junction with the lower branch, thus giving it a false superficial resemblance to the upward *curved* appendage of *ludificatus*. *P. ludificatus*, where it occurs, is usually abundant and by no means local. As a diligent search failed to reveal this species, it is not improbable that the record of Brauer is erroneous and that *siculus* was the species seen, as in fact has proved the case with Dr. Esben-Petersen's record of Mr. V. Budtz' Corsican captures.

# Wormaldia variegata sp. n. (figs. 55-56).

Head fuscous with yellowish hairs; palpi fuscous; antennae fuscous with yellowish annulations.



Figs. 55-56.—Wormaldia variegata sp. n., 8. 55, margin of last dorsa segment; 56, anterior wing.

Wings, anterior, chocolate brown, in life with two conspicuous patches of golden hairs variegating the wing, one just below the

forking of the upper cubitus, another a little further along the cubitus towards the apex and a group of three at the anastomosis; fork no. 3 longer than its footstalk; posterior, unicolorous grey-brown.

Legs light fuscous.

Abdomen fuscous.

Genitalia &, dorsal plate very slightly produced in two small rounded subtriangular lobes with excision between; inferior appendages with the basal joint very broad, second joint short with broad base.

Length of body of 4 mm.; expanse 10 mm.

Q unknown.

 $\nearrow$  type in the author's collection, I  $\nearrow$  paratype in a balsam preparation in the author's collection.

Corsica: Corte, 21.V-8.VI.1928.

# Family RHYACOPHILIDAE Stephens.

Rhyacophila trifasciata sp. n. (figs. 57-58).

Rhyacophila evoluta Petersen nec McLach.

Head brown clothed with golden and brown hairs; palpi yellowish brown; basal joints of the antennae yellow, remainder brown annulated with yellow.

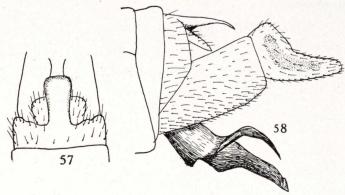
Wings, anterior, rather broad, yellow reticulated with grey, clothed with golden brown hairs; dorsal pale blotch very distinct and bordered with dark grey; three distinct dark bands occupy the central area of the wing, and there is a dark spot towards the apex and another conspicuous dark spot on the radius towards the base; first apical fork extending further inwards than the second; posterior wing yellow, darker towards the apex.

Legs yellow.

Abdomen brown above, yellow beneath.

Genitalia of, central portion of the dorsal plate longer than the side valves, very pale yellow in colour excepting the outer margin, which is dark yellow; penis stout and long, directed downward, lower margin towards the base abruptly bent to form an obtuse angle, a well defined constriction towards the apex; sheaths strongly dilated

in centre, rising in an arch above the penis, apices slender; lower peniscover apparently a yellow membranous sleeve which embraces both penis and sheaths; first joint of the inferior appendages long and broad, second joint short, its upper margin regularly excised to the



Figs. 57-58.—Rhyacophila trifasciata sp. n., J. 57, dorsal plate from above; 58, genitalia from the side.

apex of the lower margin, which is produced into a long obtuse process.

Length of body of 8 mm.; expanse 28 mm.

of type and one of paratype in the author's collection.

Corsica: Corte, 21.V-8.VI.1928. Vizzavona, I J, I Q VIII-IX. 1911. (V. Budtz).

The above species will fall into the torrentium group and may be placed after evoluta.

# Rhyacophila pallida sp. n. (figs. 59-60).

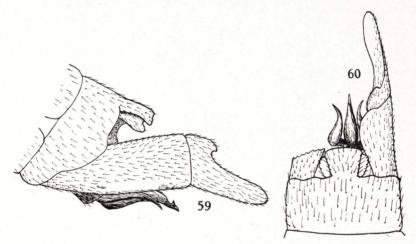
Rhyacophila obliterata Petersen nec McLach.

Head yellowish with golden hairs; ocelli rather prominent; palpi yellowish-brown; antennae brown, strongly annulated with yellow.

Wings, anterior, narrow, very acuminate, ground colour pale yellowish with grey reticulations; three distinct dark bands towards the outer half and a rhomboidal dark spot slanting towards the base from the centre of the median cellule to the lower margin of the wing; first apical fork extending further inward than the second; posterior wing with three or four yellow spots along the upper margin at the apex, ground colour pale yellowish.

Legs yellowish brown, spurs slightly darker. Abdomen brown above, yellow beneath.

Genitalia of, dorsal plate broad, the base somewhat narrower than the apex, which extends slightly beyond the level of the side-valves; penis from above stout at the base, narrowing to a point; laterally, broad at the base with a deep scoop-like excision along the upper margin towards the apex; sheaths slightly shorter than the penis, very stout with apices divergent; basal joint of inferior appendage from the side broad; in the second joint the upper margin continues the line of



Figs. 59-60.—*Rhyacophila pallida* sp. n., 5, 59, genitalia from the side; 60, genitalia from above.

the margin of the first joint, then slopes slightly downwards towards a deep rounded excision at right angles to the upper margin, giving an indication of an upper fork; then a long gradual slope to join the lower margin of the joint.

Length of body 0 9 mm.; 0 12 mm. Expanse 0 28 mm.; 0 32 mm.

 $\mbox{$\mathbb{Q}$}$  is somewhat darker than the  $\mbox{$\mathbb{Q}$}$ , genitalia as is usual in the genus.

Corsica: Corte, 21.V-8.VI.1928. Vizzavona, VIII-IX.1911. (V. Budtz).

This species will find a place at the end of the *intermedia* group. McLachlan in his First Additional Supplement to his Monograph,

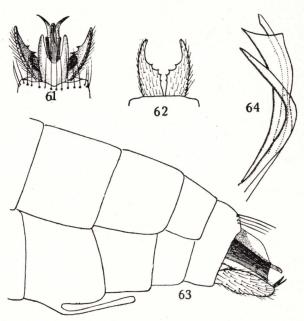
p. 63, refers a Corsican *Rhyacophila* doubtfully to *rougemonti*. It is probable that this is *R. pallida* as the inferior appendages of the two species are not unlike one another.

## Agapetus cyrnensis sp. n. (figs. 61-64).

Agapetus fuscipes Navás nec Curtis.

Head yellowish brown with dense golden hairs: palpi fuscous; antennae dark fuscous.

Wings, anterior, clothed with golden and brown hairs, membrane smoky-grey; posterior, no fork to the radius.



Figs. 61-64.—Agapetus cyrnensis sp. n., J. 61, genitalia from above; 62, inferior appendages from beneath; 63, genitalia from the side; 64, penis and sheath.

Legs pale yellow, terminal joint of the tarsi brown.

Abdomen reddish above, pale fuscous beneath.

Genitalia on, upper penis-cover deeply excised as in fuscipes; no visible superior appendages; intermediate appendages terminate in strongly chitinised upturned spines, black at the apices, and diverging strongly outward (McLachlan, I consider, mistakenly describes the intermediate appendages in the genus as penis-sheaths); penis long, slender, curving downwards and contained in a V-shaped membranous

trough (? lower penis-cover), which carries on the right side a long stout spine; inferior appendages from above concave, broad at the base, gradually narrowing to an acute apex; a central longitudinal ridge carries generally two strong black teeth; from beneath, the inner margins arise from a central point and are parallel to each other for nearly half their length, then diverge in a concave sweep towards their apices and are armed with four or five strong teeth; ventral process as in fuscipes.

Q. As is usual in the genus.

Length of body ♂ 3 mm.; ♀ 4 mm. Expanse ♂ 10 mm.; ♀ 11 mm.

 $\circlearrowleft$  type is a balsam preparation in the author's collection,  $\circlearrowleft$  and  $\circlearrowleft$  paratypes in the author's and the British Museum collections.

Corsica: Corte, 21.V-8.VI.1928. Forêt de Valdoniello, 3.VII. 1909 (Bérard).

McLachlan records a  $\circlearrowleft$  and  $\circlearrowleft$  A. fuscipes (?) from Corsica collected by Mann and in the Vienna Museum. He states that their identity is doubtful and that there are only two internal teeth to the inferior appendages. It is evident that these two examples should be referred to cyrnensis. Navás describes three examples from Corsica in the Paris Museum as fuscipes which also relate to cyrnensis, so that there is no actual evidence that fuscipes occurs in the island.

## Agapetus quadratus sp. n. (figs. 65-69).

Head black with brown hairs amongst which a few white hairs are intermingled; palpi black; antennae black.

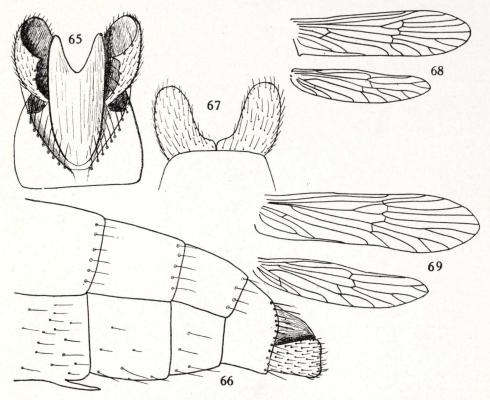
Wings, membrane grey, clothed with golden and brown hairs; anterior very narrow, scarcely dilated towards the apex so that the upper and lower margins are nearly parallel; neuration conforming to the typical arrangement; posterior wing with no fork at the termination of the radius.

Legs yellowish.

Abdomen black.

Genitalia of. Margin of the last dorsal segment is very deeply excised; there are no visible superior or intermediate appendages; upper penis-cover nearly as long as the inferior appendages and consists of a membranous plate with strongly chitinised edges, apex very

deeply excised; inferior appendages from above short broad and concave, upper margin curving over lower and forming towards the centre a sharp angle terminating in a strong prominent black tooth; from beneath the inner margins are contiguous for a short distance then widely diverge towards their rounded apices; in the centre of the inner surface is a single tooth; from the side, the inferior appendages



Figs. 65-69.—Agapetus quadratus sp. n.,  $\bigcirc$ . 65, genitalia from above; 66, genitalia from the side; 67, inferior appendages from beneath; 68, Wings; 69,  $\bigcirc$ , Wings.

are nearly rectangular, base slightly narrower than the apex; penis slender, curving slightly downward with two long slender sheaths, ventral process short and slender.

Q genitalia as is usual in the genus.

Length of body ♂ 2 mm.; ♀ 3 mm. Expanse ♂ 5 mm.; ♀ 7 mm.

 $\circlearrowleft$  type is a balsam preparation in the author's collection,  $\circlearrowleft$  and  $\supsetneq$  paratypes in the author's collection.

Corsica: Bastia, 7.VI.1928.

## Family HYDROPTILIDAE Stephens.

Hydroptila maclachlani Klap. var. corsicanus nov. (figs. 70-71).

The variety resembles H. maclachlani too closely to be given



Figs. 70. — Hydroptila maclachlani var. corsicanus nov. J. Inferior appendages from beneath; 71, Hydroptila maclachlani Klap., J. Inferior appendages from beneath.

specific rank. The scent-organ appears to be similar and the only discernable difference in the genitalia lies in the form of the bifurcate lower appendages. In *maclachlani* the two branches of each fork vary but slightly in length; in var. *corsicanus* the outer branch is much longer than the inner.

of type is a balsam preparation in the author's collection, of para-

types in the author's and British Museum collections.

Corsica: Corte, 21.V-8.VI.1928.

## Hydroptila uncinata Morton (fig. 72).

This species occured in great numbers at Bastia and as the scent-

organ has not yet been described, this would seem a fitting occasion to note its general characters.

Lobe or scent-organ cap obliquely truncate at the apex, bearing on the underside a membrane densely clothed with greyish hairs dilated towards their apices. This membrane can be considerably

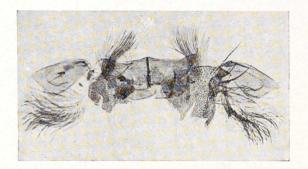


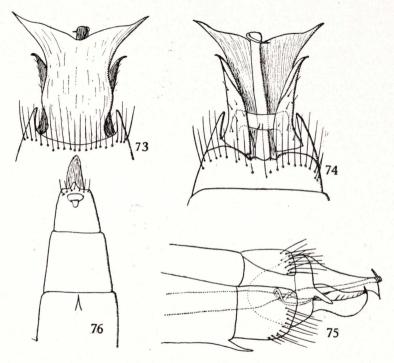
Fig. 72. — Hydroptila uncinata Morton, Scent-organ.

distended (possibly by fluid pressure as no muscular tissues are discernable). When distended the hairs stand out as on a brush; the

membrane carries towards the base of the cap, a small group of dark androconia; between the scent-organ caps are two tufts of black hairs.

### Hydroptila acuta sp. n. (figs. 73-76).

Head black, densely clothed with white hairs; palpi yellow; antennae about 34-jointed in  $\emptyset$ , 24 in  $\mathbb{Q}$ , basal portion in  $\emptyset$  light yellowish,



Figs. 73-76.—*Hydroptila acuta* sp. n., ♂. 73, genitalia from above; 74, genitalia from beneath; 75, genitalia from the side; 76, ♀, genitalia from beneath.

median portion fuscous, then two or three joints whitish, apical joints fuscous; lobes at the back of the head, or scent-organ caps, black, acorn-shaped with the acorn portion long and narrow; scent-organ consists of two eversible filaments clothed with yellowish hairs as in *H. simulans*, no androconia visible.

Wings, anterior, dark brown, a yellowish streak crossing the wing about midway, a yellowish spot centrally placed towards the apex, then a large golden yellow blotch on the costal margin with a corresponding blotch on the lower margin, then two small paired yellow

blotches and two more reduced to dots, almost at the apex; posterior wings, greyish.

Legs light fuscous.

Abdomen light fuscous.

Genitalia of conforming generally to that in the sparsa group; apical margin of the dorsal plate far wider than that of any other described species of the group; it is almost the width of the abdomen; outer angles very acute, the margin of the plate shows a shallow sinuous excision; from the side, the acute outer angles are directed forwards and downwards; side pieces rather long; penis with a right-angled hook at the extremity; inferior appendages from the side boat-shaped, apex ending in a strong upturned tooth; seven or eight strong hairs along the upper margin; lower margin rounded; ventral plate shallowly excised, with two small spines towards the centre; process of the sixth ventral segment short and acute.

Expanse of 5 mm.

Genitalia  $\bigcirc$  conforming with that prevailing throughout the sparsa group. There is a mushroom-shaped chitinised ventral plate; margin of the last ventral segment carrying seven or eight strong hairs; produced in the centre to a nearly equilateral triangle; a spur on the ante-penultimate ventral segment.

Corsica: Corte, 21.V-8.VI.1928.

# Hydroptila bifurcata sp. n. (figs. 77-80).

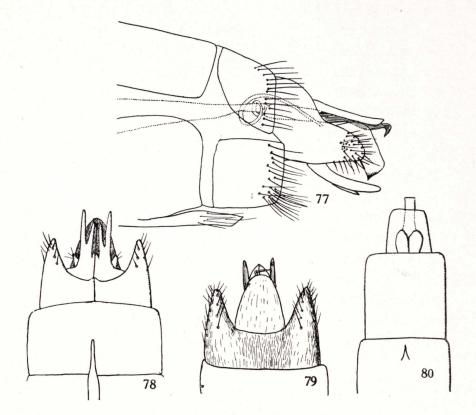
Head black, densely clothed with whitish hairs; palpi yellow; antennae about 32-jointed in the male, about 25 in the female; in the male, four or five joints towards the apex, white, the remainder dark fuscous; lobes of the head or scent-organ caps, narrow, inclining towards each other as in forcipata; scent-organ resembles that of forcipata, and consists of a membrane lining the back of the lobe to which are attached, at the base, androconia; these differ somewhat in shape from those of forcipata, being longer and less broad; at the base of each cap, on the inner side, is a tuft of specialised scenthairs.

Wings, anterior, fuscous, pattern very similar to that ot acuta but the yellow blotches are larger; apex fringed with golden hairs; posterior wings, dark fuscous, fringes dark fuscous.

Legs yellow.

Abdomen fuscous.

Genitalia on, dorsal plate long, semi-transparent, rounded at the apex; side-pieces of the last segment from the side very broad at the



Figs. 77-80.—*Hydroptila bifurcata* sp. n.,  $\mathcal{O}$ . 77, genitalia from the side; 78, genitalia from beneath; 79, genitalia from above; 80,  $\mathcal{O}$ , genitalia from beneath.

base, tapering to a truncate apex; penis twisted at the apex outward and downwards; lower penis-cover nearly rectangular, directed downward and slightly outward, lower apical angle forming a short black tooth; ventral processes are each forked, the outer longer than the inner branches; ventral spur from the side, very long, dilated towards the centre, apex obliquely truncate.

Expanse of 7 mm.

In the Q there is a ventral plate with a deeply excised apical margin in the centre of which is a narrow cleft dividing the plate; spur on ante-penultimate ventral segment.

 $\nearrow$  type is a balsam preparation in the author's collection,  $\nearrow$  and  $\bigcirc$  paratypes in the author's and British Museum

collections.

Corsica: Corte, 21.V-8.VI.1928.



Fig. 81.—Stactobia furcata sp. n., J. Genitalia from beneath.

## Stactobia furcata sp. n. (fig. 81).

The single example of this species was taken in fluid and is now in the form of a rather poor balsam preparation. All that can be said about its general appearance is that the wings are black as in other species of the genus.

Genitalia  $\circlearrowleft$ , inferior appendages trifurcate, the upper branch invisible from beneath; penis terminating in a very large black tooth, a slightly smaller tooth arising just below and inclining towards it; ventral process as is usual in the genus.

The single  $\circlearrowleft$  type is in the author's collection.

Corsica: Corte, 21.V-8.VI.1928.

## Recorded Corsican Trichoptera.

\* and \*\* taken by the Author in 1928. \*\* a new Corsican record.

#### PHRYGANEIDAE

none.

#### LIMNOPHILIDAE

\* Limnophilus lunatus Curt. (Petersen, Navás, Mosely).

— affinis Curt. (Petersen).

\* — auricula Curt. (Petersen, Mosely).

— griseus Linn. (Petersen).

\*\* — hirsutus Pict. (Mosely).

Stenophylax permistus McL. (Petersen).

\* — crossotus McL. (McLachlan, Mosely).

Micropterna sequax McL. (Hagen).

— lateralis Steph. (Petersen).

Halesus corsicus Ris (McLachlan, Ris, Petersen).

\* Potamorites budtzi Ulmer (Petersen, Ulmer, Mosely).

### SERICOSTOMATIDAE

\* Sericostoma clypeatum Hagen (Hagen, McLachlan, Petersen, Navás, Klapálek, Mosely).

Silo piceus Brauer (McLachlan).

- \*\* rufescens Ramb. (Mosely).
- \* Selis aurata Hagen (Hagen, McLachlan, Mosely).
- \* Micrasema togatum Hagen (Hagen, Petersen, Klapálek, Mosely).
- \*\* cinereum sp. n. (Mosely).
- \*\* Thremma sardoum Costa (Mosely).
- \* Helicopsyche revelieri McL. (McLachlan, Ulmer (case), Mosely).

- \*\* Lepidostoma hirtum F. (Mosely).
- \*\* \_\_ fimbriatum Ed. Pict. (Mosely).

#### LEPTOCERIDAE

Leptocerus aterrimus Steph. (Navás).

- \* \_\_ genei Ramb. (McLachlan, Mosely).
- \*\* Mystacides azurea Linn. (Mosely).

### MOLANNIDAE

Beraea maurus (Klapálek). This is probably B. aureomarginata, described in this paper.

- \*\* Beraea aureomarginata sp. n. (Mosely).
- \*\* pallida sp. n. (Mosely).
- \*\* Ernodes nigroaurata sp. n. (Mosely).

#### HYDROPSYCHIDAE

- \* Hydropsyche pellucidula Curt. (McLachlan, Mosely).
- \* \_\_ instabilis Curt. (McLachlan, Petersen, Mosely).
- \* Diplectrona meridionalis Hagen (Hagen, McLachlan, Klapálek, Mosely).
  - \*\* Diplectrona magna sp. n. (Mosely).

## POLYCENTROPIDAE

Plectrocnemia conspersa Curt. (Brauer).

\*\* — confusa sp. n. (Mosely).

Polycentropus flavomaculatus Pict. (McLachlan).

- \*\* \_ mortoni sp. n. (Mosely).
- \*\* \_\_ divergens sp. n. (Mosely).

#### **PSYCHOMYIDAE**

- \*\* Tinodes waeneri Linn. (Mosely).
- \*\* cortensis sp. n. (Mosely).

- \* Tinodes aureola Zett. (McLachlan, Mosely).
- \*\* agaricinus sp. n. (Mosely).
- \*\* Lype flavospinosa sp. n. (Mosely).
- \* Psychomyia pusilla Fabr. (Petersen, Mosely).

#### **PHILOPOTAMIDAE**

- \*\* Philopotamus siculus Hagen (Mosely).
- \* \_ flavidus Hagen (Hagen, McLachlan, Petersen, Mosely).

Philopotamus ludificatus McL. (Brauer). Doubtful. Wormaldia triangulifera McL. (Ulmer).

\*\* — variegata sp. n. (Mosely).

#### RHYACOPHILIDAE

- \*\* Rhyacophila trifasciata sp. n. (Mosely).
- \*\* \_ pallida sp. n. (Mosely).
- \* \_ tristis Pict. (McLachlan, Klapálek, Mosely).
- \*\* pubescens Pict. (Mosely).
- rougemonti McL. (McLachlan). McLachlan regarded this species as doubtful. It is probably pallida sp. n.
- \*\* Agapetus cyrnensis sp. n. (Mosely).
  - \*\* quadratus sp. n. (Mosely).

#### HYDROPTILIDAE

- \*\* Allotrichia pallicornis Eaton. (Mosely).
- \*\* Hydroptila maclachlani Klap. var. corsicanus nov. (Mosely).
- \*\* uncinata Morton (Mosely).
- \*\* acuta sp. n. (Mosely).
- \*\* bifurcata sp. n. (Mosely).
- \*\* Stactobia furcata sp. n. (Mosely).

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